

REMARKS

In response to the Office Action of July 21, 2008, claims 1, 18-20, and 33 have been amended to correct various informalities and claim 17 has been cancelled.

Claim Rejection- 35 U.S.C. § 103

At page 2 of the Office Action, claims 1-3, 6-22, and 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apisdorf et al (US 6,480,977, hereinafter Apisdorf) in view of Ahmed et al (US 6,947,398, hereinafter Ahmed) and further in view of Takagi et al (US 6,272,148, hereinafter Takagi).

With respect to claim 1, it is asserted that Apisdorf discloses the invention as claimed, but does not explicitly disclose a method for improving transmission performance of a transport layer protocol connection that uses a data transmission service of a bearer, with reference made to the abstract, column 1, lines 5-10, 38-60 and 63-67, and column 2, lines 1-21. However, it is asserted that this feature is disclosed by Takagi, with reference made to the abstract, column 3, lines 65-67 and column 4, lines 1-10. It is further stated that Apisdorf and Takagi do not disclose wherein said bearer provides uplink and downlink transmission capacity, wherein said data traffic of said transport control protocol connection comprises uplink and downlink data traffic that is separately monitored, and wherein said uplink and downlink transmission capacity is at least partially separately adjusted according to said monitored respective uplink and downlink traffic, wherein said uplink and downlink data traffic is at least partially asymmetric, with reference made to figures 1 and 2 and column 3, lines 20-28, column 8, lines 10-26, and column 11, lines 35-43. It is asserted it would have been obvious to one of the ordinary skill in the art of networking at the time of this invention to combine the teaching of Apisdorf, Takagi and Ahmed for the claimed method. Applicant respectfully disagrees.

The Office asserts that Apisdorf discloses “monitoring transport layer data traffic in relation to transmission capacity of said bearer according to said monitored data traffic of said transport layer protocol connection.” As is stated by the Office, Apisdorf does not disclose a transport layer protocol connection that uses a data transmission service of a bearer. However, it is also clear that Apisdorf does not disclose monitoring data traffic of a transport layer protocol connection in relation to transmission capacity.

Apisdorf is directed to the monitoring of optical links, and in particular, to monitoring the traffic of an optical communications network by monitoring an optical link of the communications network (Apisdorf, column 1, lines 5-9). The monitoring function shown by Apisdorf has to do with a data link layer (ATM) and a physical layer (SONET). Although Apisdorf does disclose monitoring for errors in higher-layer fields, such as internet protocol and transmission control protocols at column 5, lines 42-45, there is no hint or suggestion to monitor transport layer data traffic in relation to transmission capacity of a transport layer protocol connection.

Furthermore, it is asserted that Apisdorf discloses in column 1, lines 38-60 the feature of “dynamically adjusting said transmission capacity of said bearer according to said monitored data traffic of said transport layer protocol connection.” However, the first part of this section of Apisdorf refers to a host computer performing quality analysis on packets received from an optical card in a monitoring device to determine packet corruption and packet loss (see column 1, lines 38-48). The remainder of the cited passage discusses the comparing current traffic flows in an optical network with baseline traffic flows in order to ascertain the current state of the network and adjusting the “routing of network traffic flow...according to the current state of the network” (column 1, lines 53-55). It is clear from reading Apisdorf that network traffic flow is distinct from transmission capacity of a bearer. Thus, dynamically adjusting transmission capacity of a bearer is not disclosed in the passage cited by the Office.

The remainder of the Apisdorf reference is also silent with respect to dynamically adjusting transmission capacity of a bearer. Apisdorf discloses a Use Case Analysis for documenting the interaction between users and a system in order to discover the capabilities the system must have. However, it does not include adjusting capabilities. Thus, while Apisdorf does state that “[m]onitor process system can determine, for example, how much traffic is transmitted through the link from which the information applied to monitor process system is intercepted,” it is silent on the adjustment of transmission capacity as is featured in claim 1 (Apisdorf, column 3, lines 19-22).

Thus, it is clear that Apisdorf does not disclose the features of claim 1 as is asserted by the Office.

It is further asserted by the Office that Takagi discloses wherein a method for improving transmission performance of a transport layer protocol connection that uses a data transmission

service of a bearer. However, as was explained in the Pre-Appeal Brief submitted on March 21, 2008, Takagi does not have anything to do with dynamically adjusting a transmission capacity of a bearer according to monitored data traffic of a transport layer protocol.

Lastly, Ahmed has been cited at column 8, lines 10-26 and Fig. 1 for showing a bearer providing uplink and downlink transmission capacity in a system 100 (Fig. 1) where not only the mobile stations 102 have the ability to move but also the network nodes 104 have that ability. There are wireless links 106 between the network nodes 104 and the mobile stations 102 and point-to-point wireless links 110 between the network nodes 104. The cited passage at column 8, lines 10-27 discusses a MAC layer protocol employed on top of a physical layer “to allow meaningful statistical sharing of bandwidth among the large number of mobile terminals 102 that could potentially be attempting to access the system through a network node.” As argued in the Pre-Appeal Brief, this does not have anything to do with improving transmission performance of a transport layer protocol connection that uses a data transmission service of a bearer by dynamically adjusting the transmission capacity of the bearer according to monitored data traffic of the transport layer protocol connection. The tunnelling citations at column 3, lines 20-28 and column 8, lines 10-26 and column 11, lines 35-43 have to do with tunnelling the transient packets in a handover situation so that transient packets can be forwarded and prevent routing loops from forming. It has nothing to do with dynamic adjustment of transmission capacity.

The present invention of claim 1 deals with a problem in that service providers allocate the downlink direction with wide bandwidth and the uplink direction with narrow bandwidth because the assumption is that the consumer will be doing much more downloading than uploading (Application as filed, page 7, lines 6-17). The present invention solves problems associated with this kind of setup by allowing dynamic adjustment of the transmission capacity thereof. The prior art does not do this.

Therefore, because neither Apisdorf, Takagi, nor Ahmed disclose the feature of dynamically adjusting the transmission capacity of a bearer according to monitored data traffic of a transport layer protocol connection, this feature is not disclosed by the prior art.

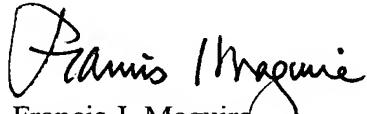
For the foregoing reasons, it is respectfully submitted that claim 1 is not unpatentable over Apisdorf, in view of Ahmed, and further in view of Takagi and is in allowable form.

Because the remaining independent claims 19, 20, and 33 are rejected on the same grounds as claim 1, it is respectfully submitted that the claims are in allowable form.

At least in view of their dependency on independent claims in allowable form, it is respectfully submitted that dependent claims 2-3, 6-16, 18, 22 and 25-32 are in allowable form.

The rejections of the Office Action of July 21, 2008, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-3, 6-16, 18-22 and 25-33 to issue is solicited.

Respectfully submitted,



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